

COASTAL SERVICES

VOLUME 8, ISSUE 4 • JULY/AUGUST 2005

LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

WETLANDS MITIGATION: Acting Proactively in North Carolina

Finding the Silver Lining in Alabama's Hurricane Recovery

Changing the "Habitattitudes" of America's Aquarium Owners



From the Director

Balancing infrastructure and economic development, which can impact wetlands, with environmental protection and enhancement is a challenge for coastal resource managers in every state.

The cover story in this edition of *Coastal Services* focuses on North Carolina's unique program to address Clean Water Act requirements to provide compensatory mitigation to replace lost wetlands functions.

The North Carolina Ecosystem Enhancement Program has received numerous national awards for innovation, primarily because it works to address environmental impacts proactively, not reactively.

The cover story looks at the program's goals, its success, and the steps the state took in its creation.

Also in this edition, you can read how Alabama coastal managers quickly joined forces after Hurricane Ivan to simultaneously dredge a navigation channel and restore beach and natural habitat.

Other articles cover a new national public awareness campaign that is working to instill a conservation mentality in those whose hobbies involve the natural environment, how environmental educators are helping teachers use geographic information systems in the classroom, and a new

publication that can take all the sun, salt, sand, and water that beachcombers can dish out.

We hope reading about such successful programs helps coastal managers communicate with and learn from each other. Another venue for learning about new and innovative coastal management projects and programs is Coastal Zone 05 (CZ05).

CZ05, the premier conference for the world's coastal resource managers, is being held July 17 through 21 in New Orleans, Louisiana. Conference tracks include coastal ecosystem health, communities and culture, hazards, and resource management.

With over 1,000 participants expected to attend from all over the world, this conference promises to provide valuable tools, lessons learned, and many new ideas. For more information, go to www.csc.noaa.gov/cz/.

Also, in the coming months, look for a survey evaluating *Coastal Services* and its sister publication, *Coastal Connections*. Your responses will help make sure these two publications contain the information you want to read.



Margaret A. Davidson

The mission of the NOAA Coastal Services Center is to support the environmental, social, and economic well being of the coast by linking people, information, and technology.



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Cover Photo: Courtesy of North Carolina Ecosystem Enhancement Program and by Charlie Jones of North Carolina Department of Transportation. A waterfall on a 5,600-acre site that was acquired by the North Carolina Ecosystem Enhancement Program and other state trust funds.

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Back issues of *Coastal Services* can be viewed at www.csc.noaa.gov/magazine/

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NOAA/CSC/20504-PUB

Coastal Services is produced bimonthly as a trade journal for coastal resource managers. Editorial content is unofficial and not authority for action. Views and opinions expressed may not reflect those of the Department of Commerce or NOAA.

News and Notes

Tools and Information for Coastal Programs

Coastal Management Fellowship Program

The fellowship program is one of the most powerful programs at the National Oceanic and Atmospheric Administration's (NOAA) Coastal Services Center. Postgraduate students are matched with state coastal zone management agencies and assigned specific projects. One state official said the program "... gives us the opportunity to address issues that otherwise would have stayed on our wish list for years, if not forever."

Each fellowship is a two-year opportunity that offers a competitive salary, medical benefits, and relocation and travel expenses for the fellow.

Current fellowship projects are listed below. To learn more about the program, visit www.csc.noaa.gov/cms/fellows.html.

- **Maryland** – Develop and distribute a watershed planning toolbox for local governments.
- **North Carolina** – Compare two commonly used shoreline datums in North Carolina – the wet/dry line and the mean high water line – to determine if results of the two methods are interchangeable.
- **Connecticut** – Develop and implement a visual impact assessment strategy.
- **California** – Develop an implementation plan for the San Francisco Bay Water Trail.
- **Maine** – Identify new approaches to manage the state's embayments.
- **Massachusetts** – Develop early detection and eradication protocols for aquatic invaders.
- **New Hampshire** – Conduct an outreach program for the

state's groundwater sustainability program.

- **New Jersey** – Develop a permit tracking program and public access guide.
- **New York** – Advance the state's efforts to improve water quality in riparian habitats.
- **Oregon** – Provide information and planning assessments for Oregon's rocky shore resources program.

Flood Inundation Maps Available

Hurricanes can flood inland areas, destroying property and endangering lives. A new computer tool lets southeastern emergency managers quickly access flood inundation maps and rainfall and river level forecasts. This information helps officials develop better evacuation and response plans.

The new Inland Flood Planning and Response Tool is part of HURREVAC, a national hurricane evacuation computer program. For more information, contact Mark.Kolowith@noaa.gov.

Harmful Algal Bloom Forecasting System

Algal blooms can harm local sea life and impact a region's economy when harmful algae are inshore. The harmful algal bloom bulletin is sent to local officials to warn them when the potential for an outbreak is great. The accompanying Web site also tracks the spread of the bloom when outbreaks occur. A new portion of the Web site was recently added to give the public information about what's happening in southwestern Florida. Visit www.csc.noaa.gov/crs/habf/ to see the site.

Determining Potential Impacts from Nonpoint Source Pollution

The Nonpoint Source Pollution and Erosion Comparison Tool (N-SPECT) is software that lets coastal managers input different development scenarios to get information about potential impacts to surface water runoff, nonpoint pollution, and erosion.

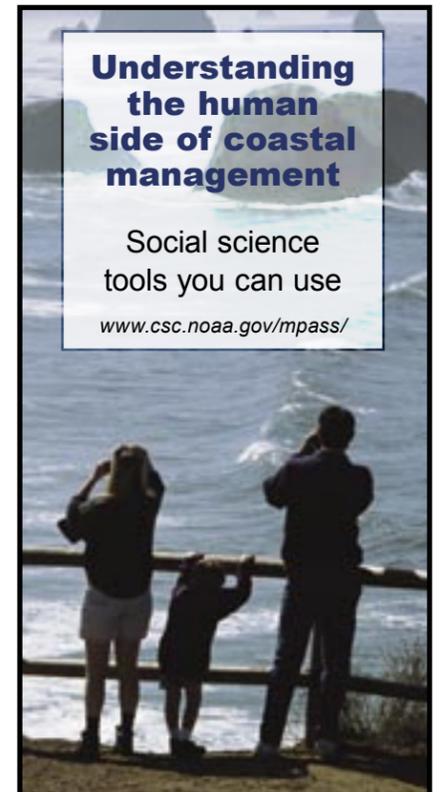
The tool was originally designed using data for a project in Hawaii, but it can also be used in other watersheds. The easy-to-use geographic information system (GIS) based tool helps officials understand potential water quality impacts to rivers and streams.

Visit www.csc.noaa.gov/crs/cwq/nspect.html, or contact Dave.Eslinger@noaa.gov for more information.

Understanding the human side of coastal management

Social science tools you can use

www.csc.noaa.gov/mpass/



Habitat Restoration

The Silver Lining in Alabama's Hurricane Recovery

Over two days last September, the Gulf coast of Alabama was thrashed by up to 130 mph winds and flooding caused by Hurricane Ivan. In addition to lost lives and damaged homes and businesses, the surging Gulf swept away massive amounts of sand, opening new island breaches, blocking navigation channels, and leveling extensive dune fields and sensitive habitat at Gulf State Park.

In the wake of the storm's devastation, federal, state, and local coastal resource managers quickly joined forces to simultaneously dredge Perdido Pass for navigation and restore beach and natural habitat. The adroit collaboration saved time and taxpayers' money.

The restored dune system "isn't exactly what we had before the storm, but it's pretty close," says Carl Ferraro, natural resource planner for the Coastal Section of the State Lands Division of the Alabama Department of Conservation and Natural Resources. "This [project] was a real silver lining to the nightmare we called Ivan."

"This [project] was a real silver lining to the nightmare we called Ivan."

**Carl Ferraro,
Alabama Department
of Conservation and
Natural Resources**

An established working group, the availability of previous beach surveys, and the additional flexibility provided in an emergency situation were all necessary components for the project's success.

Standing Tall

Before Hurricane Ivan, the area of Gulf State Park called Florida Point featured an extensive dune field with dune ridges as high as 15 feet above mean sea level, Ferraro recalls.

"These dunes were well vegetated with sea oats, other native beach and dune plants, and provided habitat for the Perdido Key beach mouse, wintering piping plovers, nesting

sea turtles, and many other sensitive beach and dune species," he says.

The U.S. Army Corps of Engineers already had permits in place to do its regularly scheduled dredging of the bordering Perdido Pass navigation channel.

The Eye of the Storm

On September 15 and 16, 2004, the Category 3 storm battered the Alabama shoreline. Ivan's storm surge reached as high as 14 feet and "pretty well flattened" the Florida Point dune field. Much of that sand was trapped in the Perdido Pass channel, Ferraro says.

He notes that the storm surge was so strong, it "tossed armoring stones around like pebbles," severely damaging a Perdido Pass jetty and weir. Additionally, the dunes anchoring the jetty were breached.

After the storm, "there was little habitat left on the point," recalls Patric Harper, a biologist for the U.S. Fish and Wildlife Service. "It was definitely an emergency situation."

Dual Goals

Shortly after the storm, the U.S. Army Corps of Engineers received

emergency funding to "go in and clear out Perdido Pass for safe navigation," says Larry Parson, physical scientist for the Corps' Mobile District.

But the Corps had a "huge problem," says Ferraro. "There was an enormous quantity of material that had to be dredged out, and the Corps was looking for a place to put it."

"Normally, we would discourage the use of dredge material outside the disposal area," because of habitat concerns, Harper explains. This time, U.S. Fish and Wildlife Service staff members suggested the Corps use the dredge material on Florida Point to "replace the sand that had been lost and reconstruct the habitat that existed."

Federal, state, and local coastal resource managers were all quick to support the idea.

Working Together

All those interviewed for this story said the relationships that developed through an existing working group were key to making that support, and the project's swift planning and implementation, possible.

Alabama is one of the states piloting the Corps' Regional Sediment Management Program, which for the past several years has brought together a team of stakeholders to address littoral issues.

"It wasn't too long ago that we didn't have the relationships with other agencies that we have today," Parson says. "We now work together to solve these types of problems. It really does make everything flow much better."

Working Fast

A project plan was developed by staff members from Fish and



A close-up look at the E. Stroud cutterhead shows a piece of white plastic sheeting that the cutterhead picked up while dredging the channel.

Wildlife, the Corps, the Alabama Department of Conservation and Natural Resources' State Lands Division Coastal Section and State Parks Division Gulf State Park, the Alabama Department of Environmental Management's Coastal Facilities Section, and the City of Orange Beach.

Harper notes that the group used pre-storm surveys to try to match the natural conditions before the storm. "This project required a quick turnaround. We didn't have time to do a lot of planning. We had major problems, and we had to get to work and coordinate quickly."

State approval to conduct the project was issued in mid-January 2005. The Corps began dredging operations in late February, with habitat restoration proceeding shortly thereafter. By March 4, most of the restoration project was completed. Additional sand fencing and dune revegetation remain to be completed.

Ultimately, 530,000 cubic yards of sand were pumped onto the beach, the slope of which was designed to facilitate sea turtle nesting. The dredging project cost \$750,000, which Nathan Lovelace, a civil engineer with the Corps'

Mobile District, says is "very cheap. It's about a dollar a yard."

Ferraro notes that in some areas, "sea oats and other native vegetation are coming back already."

Silver Lining

The success of this project generates reactions from participants such as, "refreshing," "great," and "we accomplished a lot."

"To me, a typical project where you are doing environmental restoration could take years to really take to completion," Parson says. "Here, we just saw something that needed to be done, had the funding to do it, the support to do it, and we moved ahead very quickly."

Harper adds, "Each of the agencies had to give up a little, but it was far outweighed by the positive benefits which the environment and the species will receive." ❖

For more information on the post-Ivan habitat restoration at Perdido Pass, contact Carl Ferraro at (251) 929-0900, or cferraro@dcnr.state.al.us. You also may contact Larry Parson at (251) 690-3139, or Larry.E.Parson@sam.usace.army.mil, or Patric Harper at (251) 441-5857, or Patric_Harper@fws.gov.

Dredge material spews through the mouth of a 24-inch pipe. As the material dries, earthmovers spread the sand to create the "new" beach.



WETLANDS MITIGATION:



Photos courtesy of North Carolina Ecosystem Enhancement Program

All coastal resource managers recognize the value of wetlands, which do everything from filtering pollution before it reaches streams and rivers, to protecting communities from floodwaters, to providing a breeding ground for fish and wildlife. The challenge is in balancing the need for economic development, which can impact wetlands, with protecting and enhancing the environment.

What is different for each state is how to accomplish this mitigation.

The Clean Water Act requires all states to provide compensatory mitigation to replace unavoidable loss of wetland functions. Compensatory mitigation is defined as, "the restoration, creation, enhancement, or in exceptional cases preservation of wetlands and/or other aquatic resources."

What is different for each state is how to accomplish this mitigation.

North Carolina's Ecosystem Enhancement Program is being cited as a "national model" for wetlands mitigation. The program has received numerous national awards for innovation and was recently cited as one of the nation's top 50 innovative new government programs by a prestigious innovation-in-government competition.

Acting Proactively in North Carolina

What makes the Ecosystem Enhancement Program stand out, says Bill Gilmore, the program's director, is that it "partners with resource agencies in a capacity that goes beyond pure regulation" to address environmental impacts "proactively, not reactively."

Establishing Procedure

The Ecosystem Enhancement Program was established in July 2003 when the North Carolina Departments of Transportation, and Environment and Natural Resources, along with the U.S. Army Corps of Engineers, signed a memorandum of agreement to establish the program's procedures.

The program, housed under the Department of Environment and Natural Resources, uses existing state Board of Transportation funds to offset the unavoidable impacts of highway construction, and other infrastructure and economic development, "years in advance of when the compensation is needed," Gilmore says.

Other sources of funding, such as in-lieu fee payments, help the program accomplish additional goals, such as producing "the most environmentally beneficial mitigation possible" by focusing on the preservation and restoration of the highest-quality areas along impaired streams and rivers, he says.

Gilmore notes that program staff members and contractors are working with an expansive network of local and regional

conservation agencies and organizations to "assess, restore, enhance, and preserve natural resources throughout the state," and are working with local partners to develop and implement detailed watershed plans for the state's threatened or degraded watersheds.

For a nominal fee, developers, mitigation banks, and "anyone who needs compensatory mitigation" also can tap into the program's expertise and relationships with regulators to help fulfill their requirements.

Sharing the Numbers

According to the numbers provided by Tad Boggs, the organization's director of communications, the Environmental Enhancement Program's unique approach to compensatory mitigation is working.

In the two years since the program came on line, it has successfully worked with public- and private-sector partners to "set aside more than 30,000 acres for future generations, protecting 170 miles of streams and about 7,000 acres of wetlands," notes Boggs.

He adds that "an additional 11,000 acres of preservation areas are earmarked for protection and are under negotiation with landowners."

To protect water quality and enhance watersheds, the program and its private-sector partners are carrying out nearly 400 active restoration projects. These projects have so far resulted in 780,000

linear feet of stream restoration and about 7,600 acres of wetland restoration, Boggs says.

He notes that the program has been working with local partners to bring 30 watershed plans to completion, or near completion.

The Road to Success

A gauge that staff members are particularly proud of, Boggs says, is that since the program's inception, "not a single road-building project has been delayed because of mitigation problems."

"The program's mitigation efforts have helped to move forward nearly \$1.5 billion in road projects at a cost of about \$36 million—about 2.3 percent of the value of the projects," he says.

This is particularly important because it was delays of North Carolina Department of Transportation projects that were one of the impetuses for the program's creation, Gilmore explains.

During the mid-1990s, when mitigation was required for a road construction project, the Department of Transportation "planned, designed, and constructed mitigation sites themselves," Gilmore says. As a result of this "project by project" mitigation strategy, the state agency "started falling behind on major construction activities."

In 1997, the state founded the Wetlands Restoration Program under the Department

of Environment and Natural Resources. This wetlands-oriented mitigation program was "available to anyone who needed assistance with mitigation," Gilmore says.

Initially, both departments' mitigation programs functioned independently with different operating processes. In 1999, the Wetlands Restoration Program began assisting the Department of Transportation with its mitigation projects, but permit delays for transportation projects continued.

A New Model

To address this situation, about 20 people representing state and federal agencies and other interest groups attended a weeklong cooperative process-improvement workshop in 2001.

"What came out of that workshop," Gilmore says, "was a gap analysis," which identified the need to address temporal loss of wetlands, and suggested replacing permit-by-permit mitigation with a more streamlined process that would provide mitigation in advance of project impacts. The group also recommended the state undertake comprehensive watershed planning and combine program management to create one comprehensive mitigation program.

Government officials spent two years developing a framework for implementing what would become the Ecosystem Enhancement Program.

Accolades

Gilmore believes the program has "done pretty well. Overall, I think the program has succeeded."

Others seem to agree. Earlier this year, the program received the annual Environmental Excellence Award from the National Association of Environmental Professionals, and was cited as one of the nation's top 50 innovative new government programs by the Innovations in American Government Awards committee, which is sponsored by the Ash Institute for Democratic Governance and Innovation at Harvard University's Kennedy School of Government, and the Council for Excellence in Government in Washington, D.C.

The program's concept already had earned a 2003 award for innovation from the National Association of Development Organizations and has been recognized by the Federal Highway Administration for outstanding environmental stewardship, and as one of 15 Exemplary Ecosystem Initiatives nationwide.

What has led to the program's success, Gilmore says, is having the "mutual respect of and working relationships with the regulatory community and all the shareholders."

He adds, "The bottom line comes back to relationships. You have to tell what you are going to do and then do what you said." ❖

For more information on North Carolina's Ecosystem Enhancement Program, point your browser to www.nceep.net. To view the memorandum of agreement, go to www.nceep.net/images/Final%20MOA.pdf. You may also contact Bill Gilmore at (919) 715-1412, or Bill.Gilmore@ncmail.net.

Changing the "Habitattitudes" of America's Aquarium Owners



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 DO NOT RELEASE FISH AND AQUATIC PLANTS
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www.Habitattitude.net

Water gardeners and those who keep aquariums and backyard ponds may not realize that their pastime has the potential to harm the environment if an unwanted fish or aquatic plant is released. A new national public awareness campaign is working to instill a conservation mentality in those who are faced with disposal issues.

The Habitattitude campaign messages are appearing in pet stores on fish bags and aquariums, and ads are being run in related hobby and trade magazines.

The trademarked Habitattitude campaign features a "don't release" message and promotes simple actions for people to take when faced with an unwanted plant or fish. It features a logo and slogan, public service advertisements, and promotional materials, which are

available for use by coastal resource managers and others who sign up to become campaign partners.

"It is a proactive solution aimed at raising awareness, engaging people, and promoting behavior change," says Doug Jensen, aquatic invasive species program coordinator for the University of Minnesota Sea Grant Program. The campaign's "simple and consistent environmental messages can be promoted locally to address a global issue."

Jensen adds, "It provides credibility and accountability to all of our outreach efforts when we are communicating the same message."

That message centers on the campaign logo of a blue and green fish in a bowl. Jensen says the fish in the bowl represents the element of containment and protecting the environment. The fact that Habitattitude is difficult to pronounce gives it an "element of memorability."

The campaign slogan—"Protect Our Environment. Do Not Release Fish and Aquatic Plants"—provides "clarity and instruction," Jensen says.

The creation of the campaign was a collaborative effort of the Pet Industry Joint Advisory Council, the National Oceanic and Atmospheric Administration's (NOAA) Great Lakes Sea Grant Network, and the U.S. Fish and Wildlife Service. By joining forces, Jensen says, they were able to "avoid duplication of effort and leverage resources, funding, and experience."

He notes that the Pet Industry Joint Advisory Council, which represents over 70 percent of the U.S. pet industry, has committed more than \$1.1 million to the campaign. The contribution helped garner \$100,000 from the Fish and

Wildlife Service and a \$300,000 grant from the NOAA National Sea Grant College Program.

The campaign was launched in September 2004 at SuperZoo, one of the largest pet industry trade shows in the U.S. The Habitattitude campaign messages are appearing in pet stores on fish bags and aquariums, and ads are being run in related hobby and trade magazines.

"The Habitattitude campaign really serves as a model partnership," Jensen says.

He adds, "I think whether we admit it or not, there is a strong environmental conservation ethic in everyone, and tapping into that ethic is one of the keys to natural resource protection and conservation." ❖

To become a Habitattitude campaign partner, point your browser to www.habitattitude.net. For more information, contact Doug Jensen at (218) 726-8712, or djensen1@umn.edu.



Sea Grant educators talk to Duluth-Superior area 6th graders about Habitattitude at an education event called River Quest.

Sanctuaries Take Technology into the Classroom

Geographic information systems (GIS) have proven their value to coastal resource managers who rely on this mapping technology to aid in planning and decision making. Environmental educators are now helping teachers use GIS in the classroom to capture the interest of students as they learn about coastal and ocean sciences.

"GIS is a great tool to teach science," says Laura Francis, education coordinator at Channel Islands National Marine Sanctuary in California. "If the data presented is from a real sanctuary, it becomes even more meaningful."

Channel Islands is helping pioneer efforts to bring GIS into science classrooms around the country. The sanctuary's pilot effort, Mapping an Ocean Sanctuary, provides high school teachers with standards-based lesson plans using Channel Islands' GIS data. The programming has evolved into other projects and expanded to include other national marine sanctuaries.

In 2000, Channel Islands partnered with the Center for Image Processing in Education to develop

the Mapping an Ocean Sanctuary curriculum—a set of six lessons that provide students with actual case studies, data, and images from the Channel Islands.

As students work through the lessons, they also learn GIS analysis techniques that can be used to customize the lessons, or to develop new projects. They also collect their own information and add it to an existing ArcView GIS.

Evaluations of Mapping an Ocean Sanctuary expanded the sanctuary's GIS offerings to include the Ocean Explorers project.

"We did a follow-up with teachers, and some of them were struggling to implement it," explains Francis. Ocean Explorers helps teachers overcome barriers to using GIS in the classroom.

Sixty teachers from throughout California are currently in the second year of the intensive three-year Ocean Explorers program. Teachers participating in the project receive mentoring, software, equipment, funding, and training.

"They learn GIS inside and out," and as a result can "develop their own lessons and become mentor teachers for others in the district and area," Francis says.

Another offshoot is Exploring Data with GIS to Experience Sanctuaries, or EDGES. Again collaborating with the Center for Image Processing in Education, developers created the EDGES curriculum using GIS data, including satellite and buoy data, from Channel Islands, Stellwagen Bank National Marine Sanctuary in Massachusetts, Gray's

"If the data presented is from a real sanctuary, it becomes even more meaningful."

**Laura Francis,
 Channel Islands National
 Marine Sanctuary**

Reef National Marine Sanctuary in Georgia, and Florida Keys National Marine Sanctuary in Florida.

The EDGES curriculum is now being pilot tested at each of the sanctuaries.

Expanding the curriculum to other sanctuaries and other parts of the country provides students with data that are more relevant to their own regions, notes Cathy Sakas, education coordinator for Gray's Reef. "It helps bring it home a little bit."

Sakas adds, "What we are trying to accomplish is an ocean-literate society. Any way, shape, or form that we can get ocean science into the schools, we'll do it. This is a golden opportunity." ❖

For more information about Mapping an Ocean Sanctuary, point your browser to www.evisual.org/www/Instr/MOS.html, or http://channelislands.noaa.gov/edu/edu_act1.html. For more information about either Mapping an Ocean Sanctuary or EDGES, contact Laura Francis at (805) 884-1463, or Laura.Francis@noaa.gov, or Jenny Brady, director of GIS education at the Center for Image Processing in Education, at (800) 322-9884, ext. 253, or jennyb@evisual.org. For more information on EDGES, contact Cathy Sakas at (912) 598-2417, or Cathy.Sakas@noaa.gov.



Channel Islands National Marine Sanctuary Physical Scientist Ben Waltenberger (far left) and Center For Image Processing in Education Project Director Jenny Brady (far right) show teachers how to use GPS units during a teacher workshop.

Massachusetts Puts Beachcombing in the Bag

Anyone who has ever dropped a field guide into the ocean has wished for an easier way to identify and track the critters they find on the beach. Beachcombers along the Atlantic coastline have gotten their wish with the release of the Beachcomber's Companion—a new publication that can take the activity's sun, salt, sand, and water.

"We spent a lot of time thinking about the little things—the right clip, the right paper, the right pencil—and then spent a couple of months testing it," says Tracey Crago, communicator for the Woods Hole Sea Grant program and one of the companion's developers.

The final product has such broad appeal that it is being sold retail in aquarium, museum, and zoo stores, and other related shops.

The final product has such broad appeal that it is being sold retail in aquarium, museum, and zoo stores, and other related shops.

The Beachcomber's Companion is a set of 50 slightly larger than bookmark-sized cards held together by a clip, similar to a key ring. Each card features original color artwork of a marine invertebrate common to the Atlantic coast and concise

information on identifying a specimen, where to look for it, and a "cool" fact, such as what it eats, or what eats it.

"We have most of the same information" found in traditional field guides, says Crago, "but it is presented in a more friendly way. It's geared to help answer the questions you would naturally ask while exploring the beach."

Included are a species checklist card and a grease pencil that is easily erased to help beachcombers keep track of the day's adventures. It is packaged in a mesh bag, which can be used to collect shells and other specimens.

"This is beachcombing in a bag," Crago explains.

The professionally designed cards are printed on YUPO, a synthetic, extremely durable paper, and have a UV coating. Crago says as long as users rinse the cards when they get home, the set should last through many trips to the beach.

The card sets were expensive to produce, costing \$11.95 each. Because of their broad appeal, and to help recoup the cost, Sea Grant turned to retail stores as a way to help distribute the Beachcomber's Companion.

"This is our first foray into the retail market," Crago notes. "We tried to do everything the right way. We got it [peer] reviewed, got it looking good, and we are getting it out there so people can become more informed beachcombers."

While there is much to learn about the retail market, Crago



Graphics courtesy of Woods Hole Sea Grant

says, "everyone who sees them goes crazy and orders." The companion was released in February, and by May, 20 percent of the initial 5,000 printing already had been sold.

"We haven't even hit the season yet," Crago notes.

The publication also can be ordered off a Web site, which soon will feature e-postcards, virtual beachcombing, and an education section where teachers can submit lesson plans using the cards.

"It's really a fun twist on a traditional field guide," Crago adds. "We have found a new niche market." ❖

To order the Beachcomber's Companion, point your browser to www.beachcomberscompanion.net. For more information, contact Tracey Crago at (508) 289-2665, or tcrago@whoi.edu.

Ideas for the Next Issue

In every edition of *Coastal Services*, we highlight information about coastal resource management issues and successful management programs as a way to help the nation's coastal managers communicate with and learn from each other. The magazine provides articles on projects and programs that the coastal management community can use to educate its agencies and constituents.

Now is your chance to tell us how we are doing.

To serve you better, the National Oceanic and Atmospheric Administration's (NOAA) Coastal Services Center is undergoing a formal evaluation of *Coastal Services* and its sister publication, *Coastal Connections*, a newsletter focusing on coastal management tools and techniques.

In the coming months, subscribers will be asked to fill out a survey to tell us how our publications can better meet coastal manager needs. Questions will cover subscriber interest in articles, relevancy of covered topics, and if stories have generated ideas, or provided helpful resources.

The survey will be coming in the mail from StrategyOne, a Washington D.C.-based public opinion research agency.

Both publications' writers and editors would like to thank you in advance for taking the time to participate. Your responses will help make sure future editions of *Coastal Services* and *Coastal Connections* contain the information you want to read.

To read past editions of *Coastal Services*, point your browser to www.csc.noaa.gov/magazine/. For back issues of *Coastal Connections*, go to www.csc.noaa.gov/newsletter/. For more information, or to provide immediate feedback on either publication, contact Hanna Goss via e-mail at Hanna.Goss@noaa.gov, or by mail at 2234 South Hobson Avenue, Charleston, SC 29405-2413. You may also contact her by phone at (843) 740-1332, or fax at (843) 740-1313.

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Looking for Funds in All the Right Places?

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25% post-consumer waste.